UVAROV, V.V., prof., doktor tekhn.nauk; LEBEDYANSKIY, L.S., konstruktor; OMIROV, V.S., inzh.; CHERNOBROVKIN, A.P., kand.tekhn.nauk, dots.; SHARGOVSKIY, R.I., inzh.; SHEPILOV, V.P., inzh.

The 6,000 hp. gas turbine locomotive constructed by the Kolomna Plant. Izv.vys.ucheb.zav.; mashinostr. no.6:104-108 '58. (MIRA 12:8)

1. Moskovskoye vysshoye tekhnicheskoye uchilishche im. Baumana i Kolomenskiy teplovozostroitel'nyy zavod im. Kuybysheva.
(Gas turbine locomotives)

SHARGOVSKIY, R.I., inzh.

First Soviet gas-turbine locomotive. Zhel.dor.transp. 42 no.1:21-22,48b-48c Ja '60. (MIRA 13:5)

1. Zamestitel' glavnogo konstruktora Kolomenskogo teplovozostroitel'nogo zavoda.
(Kolomna--Gas turbine locomotives)

SHARI, Tamara Sergeyevna.; GAL'PERIN, L.L. redaktor; BOBROVA, Ye.N., tekhnicheskiy redaktor.

[Devices used in repairing electric locomotive equipment] Prisposobleniia dlia remonta oborudovaniia elektrovozov; opyt raboty kollektivov elektrovoznykh depo elektrifitsirovannykh uchastkov Severnoi, Sverdlovskoi i IUzhno-Ural'skoi dorog. Moskva, Ges. transp.zhel-dor.izd-vo, 1957. 66 p. (MLRA 10:6)
(Electric locomotives--Repairing)

SHARIFKANOV, A.

9003

Condensation of *o*-formylbenzoic acid with succinic acid. A. Sharifkanov. *Uchenye Zapiski Kazakh. Univ.* 16, 113–18 (1954); *Referat. Zhur., Khim.* 1955, No. 2054.—A mixt. of anhyd. Na salts of *o*-$OHCC_6H_4CO_2H$ and $(HO_2CCH_2)_2$ (0.052 mole each) heated 12 hrs. at 110–25° with 0.103 mole Ac_2O, the product treated with 1:1 HCl, and the oily substance sepd. and extd. with ether yielded 28% of *o*-carboxyphenylvinylacetic acid, m. 66–7°. From the acidified aq. layer were sepd. *o*-$OHCC_6H_4CO_2H$ 40.1 and $(HO_2CCH_2)_2$ 44.1% of the original quantities. Heating on a boiling water bath 32 hrs. increased the yield of the condensation product to 37.6%. M. Hoseh

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1

Skarifkanov, A. Sh.

Distr: 4E4j/4E3d/4E2c(j)

Heterocyclic compounds. LIV. Synthesis of 1-alkenyl-2,5-dimethyl-4-piperidones. I. N. Nazarov, A. Sh. Skarifkanov, and L. F. Panitova (Inst. Org. Chem., Acad. Sci. U.S.S.R., Moscow). *Zhur. Obshchei Khim.*, 27, 1693–7 (1957); cf. *C.A.* 51, 9606d, 15520b.—Heating 14 g. 2,5-dimethyl-4-piperidone with 11 g. CH_2:$CHCH_2Cl$ in dioxane 11 hrs. at 70° gave 10.3 g. *1-allyl-2,5-dimethyl-4-piperidone*, b_4 76°, n_D^{20} 1.4720, d_4^{20} 0.9464. Crotyl bromide similarly gave the *1-crotyl analog*, b_4 87–9°, 1.4761, d_4 0.9488 (*picrate*, m. 145–7°; *HCl salt*, m. 165–6°). The use of 1,3-dichloro-2-butene gave similarly *1-(γ-chlorocrotyl)-2,5-dimethyl-4-piperidone*, b_3 111–13°, 1.4950, d_4 1.0053 (*picrate*, m. 122–4°; *HCl salt*, m. 123–4.5°); the use of Me_2C:$CHCH_2Cl$ gave *1-(γ,γ-dimethylallyl)-2,5-dimethyl-4-piperidone*, b_4 84–6°, 1.4810, 0.9371 (*HCl salt*, m. 148–7°; *picrate*, m. 138–9.5°). The use of 1-chloro-5-methyl-2,4-hexadiene similarly gave 60% *1-(5-methyl-2,4-hexadienyl)-2,5-dimethyl-4-piperidone*, b_3 112–20°, 1.5105, 0.9584 (*picrate*, m. 143–5°). The use of 1,3-dichloro-5-methyl-2,4-hexadiene similarly gave 61% *1-(3-chloro-5-methyl-2,4-hexadienyl)-2,5-dimethyl-4-piperidone*, $b_{0.4}$ 140–3°, 1.5135, — (*picrate*, m. 144–7°). LVI. Action of primary amines on propenyl isopropenyl ketone. I. N. Nazarov and N. I. Shvetsov. *Ibid.* 1218–22.—Hydrogenation of 570 g. AcH, 900 ml. 25% NH_4OH, and 18 g. Raney Ni (mixed at −10°) at 60–90°/100 atm. gave 31% $EtNH_2$. Similarly, Me_2CO gave 76% iso-$PrNH_2$, PrCHO gave 75% $BuNH_2$, iso-PrCHO gave 65% iso-$BuNH_2$, iso-BuCHO gave a good yield of iso-$AmNH_2$ and some iso-Am_2NH, cyclohexanone gave 87% $C_6H_{11}NH_2$, while hydrogenation of $PhNH_2$ over Raney Ni at 110 atm. at 145–55° gave but 30% $C_6H_{11}NH_2$ and appreciable amts. of secondary and tertiary amines; CH_2:CHCN gave a fair yield of $PrNH_2$ and mixed Pr_2NH and Pr_3N. The mixed methoxy ketones

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Nazarov, I.N.; Sharifkanov, A.Sh.; Danilova, K.F.

from hydration in MeOH of 108 g. CH_2:CMeCOCH:CH_2, 60 g. $EtNH_2$, and 50 ml. H_2O heated 5 hrs. at 80° in an ampul gave 72.1% *1-ethyl-2,5-dimethyl-4-piperidone*, b_4 76–8°, n_D^{20} 1.4630. To 225 g. MeCH:CHCOCMe:CH_2 was added 120 g. $PrNH_2$ and the mixt. kept overnight and heated 4 hrs. at 60° yielding 247 g. *1-propyl-2,5-dimethyl-4-piperidone*, b_4 80–2°, n_D^{20} 1.4602, d_4^{20} 0.9260 (*picrate*, m. 157–8°), also prepd. by heating in an ampul to 80° the mixed methoxy ketones from hydration of the diene ketone with the amine. Use of iso-$PrNH_2$ in this reaction similarly gave *1-isopropyl-2,5-dimethyl-4-piperidone*, b_4 86–7°, n_D^{20} 1.4635, d_4^{20} 0.9342; *picrate*, m. 188°. Similarly were prepd.: *1-butyl-2,5-dimethyl-4-piperidone*, b_4 75–6°, 1.4630, 0.9258 (*picrate*, m. 135–6°); *1-isobutyl-2,5-dimethyl-4-piperidone*, $b_{4.5}$ 80°, 1.4605, 0.9170 (*methiodide*, m. 147–8°); *1-isoamyl-2,5-dimethyl-4-piperidone*, b_3 90–2°, 1.4615, 0.9102 (*picrate*, m. 142.5–3°). Cyclohexylamine similarly gave *1-cyclohexyl-2,5-dimethyl-4-piperidone*, b_4 123–32°, which gave the pure product, m. 73–4°; the *HCl salt*, m. 170–1°, was used for the purification.

G. M. Kosolapoff

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Sharifkanov, A. Sh.

7

Heterocyclic compounds. LV. Synthetic analgesic substances. 16. Synthesis of 1-alkenyl-2,5-dimethyl-4-phenyl-4-piperidinols and their propionic esters. Analogs of Promedol and Isopromedol. 3. I. N. Nazarov and A. Sh. Sharifkanov (Inst. Org. Chem., Acad. Sci. U.S.S.R., Moscow). *Zhur. Obshchei Khim.* 27, 2005–12 (1957); cf. *C.A.* 51, 8742*b*, 15521*c*; 52, 3802*g*.—[The 1-substituted 2,5-dimethyl-4-piperidones and 4-piperidinols and the 1,4-disubstituted 4-piperidinols in this abstr. are represented by *A*, *B*, and *C*, resp., followed in parentheses by the 1- or the 1- and 4-substituents.] To 5.5 g. sliced Li in 110 ml. abs. Et_2O, was added in 2h rs. under N 57 g. PhBr in 115 ml. EtO, the mixt. refluxed 2 hrs., cooled to −10°, treated over 1.5 hrs. with 54.4 g. *A* ($MeCH:CHCH_2$) in Et_2O, held overnight, refluxed 2 hrs., treated with ice, satd. with KOH, and extd. with Et_2O, yielding 74.6% *B* (*MeCH:CHCH₂Ph*); *stereoisomers*, b_1 131–5°, sepd. by fractional crystn. from ligroine into 17% *γ-form* (I), m. 102–3° (*HCl salt*, m. 138–40°) [hydrogenated over Raney Ni to *γ-B* (*Bu, Ph*), m. 95–6°], and *β-form* (II) (9% of the total), m. 97–8° [*HCl salt*, m. 199–200°; *β-L-B* (*Bu, Ph*), m. 69–70° (cf. *C.A.* 51, 8088*b*)]. Similarly PhLi and *A* ($CMe_2:CHCH_3$) gave *B* ($Me_2C:CHCH_2$, *Ph*) *isomers*: *γ-form* (III) (27% of total), m. 115.5–16.5° [*HCl salt*, m. 163–4°; *B* (*iso-Am, Ph*), m. 109–10°]; *β-form* (IV) (10%), m. 105.5–6.5° [*HCl salt*, m. 202–3°; B (iso-Am, Ph), m. 82–3°]; and *α-form* (2%), m. 109.5–10.5° [*HCl salt*, m. 211–12°; *B* (*iso-Am, Ph*), m. 104–5°]. Much of the mixt. was unsepd. PhLi and *A* (*MeCCl:CHCH₂*) gave *B* (*MeCCl:CHCH₂, Ph*) *isomers*: *γ-form* (V) (14%), m. 110–11° (*HCl salt*, m. 137–9°), hy-

Nazarov, I.N.; Sharikanov, A.Sh.

drogenated to *B* (*Bu, Ph*), m. 93–4°; *β-form* (VI) (25%), m. 134–5° [*HCl salt*, m. 190–1°; *B* (*Bu, Ph*), m. 69–70°]; and *α-form* (4%), m. 132° (*HCl salt*, m. 206–7°). *A* (Me-CH:CHCH:CHCH$_2$) and PhLi gave 73% mixed stereoisomeric *B* (*MeCH:CHCH:CHCH$_2$, Ph*), oil, b$_1$ 160–70°; *HCl salt*, oil. I and (EtCO)$_2$O and EtCOCl heated 10 hrs. at 120° gave 44% I *propionate HCl salt*, m. 169–70°; similarly formed, II *propionate HCl salt* (82%), m. 181–2°. Heating 4 g. III 11 hrs. at 100° in 10 ml. C$_6$H$_6$, 3.5 ml. Et-COCl, and 0.3 g. Mg shavings yielded after aq. treatment 3.3 g. III *propionate*, b$_1$ 135–55°, which gave the *HCl salt*, m. 188–9°, also formed directly from III and EtCOCl in Et$_2$O. Thus were prepd. the following *propionate HCl salts*: IV, 52% m. 163–4°; 44% V, m. 182.5–3.5°, and 62% VI, m. 161–2°. The *β*-isomers of the propionates have stronger analgesic activity than the *γ*-isomers. All are around 1/5 as active as Promedol or Isonormedol.

G. M. K.

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AUTHORS: Nazarov, I. N., Sharifkanov, A. Sh., 62-58-4-9/32

TITLE: Heterocyclic Compounds (Geterotsiklicheskiye soyedineniya) Communication 58: Anesthetizing Synthetic Substances (Soobshcheniye 58: Sinteticheskiye obezbolivayushchiye veshchestva). XIX. Synthesis of Benzoic and Phenylacetic Esters of 1-Alkenyl- 2,5-Dimethyl-4-Ethynyl -4-Piperidoles (XIX. Sintez benzoynykh i fenoksiuksusnykh efirov 1-alkenil- 2,5-dimetil-4-etinil-4-piperidolov)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Khimicheskikh Nauk, 1958, Nr 4, pp. 446-451 (USSR)

ABSTRACT: As the authors communicated already earlier (references 1-4) they carry out systematic investigations of the synthesis of new anesthetic substances in their laboratory. The purpose of this paper was to explain the influence of unsaturated ralicals at the nitrogen on the physiologic activity of benzoic and phenylacetic esters of 2,5-dimethyl-4-ethynyl - 4-piperidole. The results of this experiment were the following: By condensation of 1-alkenyl-2, 5-dimethyl-4-piperidole with acetylene at 5 atmospheres excess pressure

Card 1/3

62-58-4-9/32

Heterocyclic Compounds. Communication 58: Anesthetizing Synthetic Substances. XIX. Synthesis of Benzoic and Phenylacetic Esters of 1-Alkenyl-1-2, 5-Dimethyl-4-Ethynyl -4-Piperidoles

the corresponding 1-alkenyl-2, 5-dimethyl-4-ethynyl -piperidole was produced in great yields (formulae I - III) namely as a mixture of stereochemical isomers which separate into individual compounds by means of partial crystallization of the hydrochlorides. By the esterification of the piperidoles (formulae I - III) by means of chlorine anhydrides of benzoic and phenylacetic acids their benzoic and phenylacetic esters were produced (formulae IV - VIII). The latter were subjected to a pharmacological investigation with regard to their anesthetic effect. It showed that with regard to this effect benzoic ester of 1-crotyl-2, 5-dimethyl-4-ethinyl-4-piperidole was the most valuable of these esters. There is 1 table, and 7 references, 6 of which are Soviet.

Card 2/3

62-58-4-9/32

Heterocyclic Compounds. Communication 58: Anesthetizing Synthetic Substances. XIX. Synthesis of Benzoic and Phenylacetic Esters of 1-Alkyl-2, 5-Dimethyl-4-Ethinyl-4-Piperidoles

ASSOCIATION: Institut organicheskoy khimii im.N. D. Zelinskogo Akademii nauk SSSR, Kazakhskiy gosudarstvennyy universitet im. S. M. Kirova (Institute for Organic Chemistry imeni N.D. Zelinskiy, AS USSR and Kazakh State University imeni S. M. Kirov)

SUBMITTED: November 20, 1956

AVAILABLE: Library of Congress

1. Heterocyclic compounds 2. Benzoic esters—Synthesis
3. Phenylacetic esters—Synthesis

Card 3/3

62-58-4-10/32

AUTHORS: Nazarov, I. N., Sharifkanov, A. Sh., Danilova, K.F.

TITLE: Heterocyclic Compounds (Geterotsiklicheskiye soyedineniya). Communication 59: Anesthetizing Synthetic Substances (Soobshcheniye 59: Sinteticheskiye obezbolivayushchiye veshchestva). XX. Synthesis of the Benzoic and Phenylacetic Esters 1-Alkenyl-2,5-Dimethyl-4-Ethyl-4-Piperidoles (XX. Sintez benzoynykh i fenoksiuksusnykh efirov 1-alkenil-2,5-dimetil-4-etil-4-piperidolov)

PERIODICAL: Izvestiya Akademii Nauk SSSR,Otdeleniye Khimicheskikh Nauk, 1958, Nr 4, pp. 452 - 459 (USSR)

ABSTRACT: In the previous work some benzoates and phenoxyacetates of 1-alkenyl-2,5-dimethyl-4-ethinyl-4-piperidole were described. Among them are some compounds which have strong anesthetizing effects. In continuation of these investigations the authors decided to synthetize benzoates and phenoxyacetates of 1-alkenyl-2,5-dimethyl-4-ethinyl-4-piperidole. The initial 1-alkenyl-2,5-dimethyl-4-ethinyl-4-piperidole (formulae I-III)

Card 1/3

62-58-4-10/32

Heterocyclic Compounds. Communication 59: Anesthetizing Synthetic Substances. XX. Synthesis of the Benzoic and Phenylacetic Esters 1-Alkenyl-2,5-Dimethyl-4-Ethyl-4-Piperidoles

were produced in great yields (70%) by condensation of lithium ethyl with 1-alkenyl-2,5-dimethyl-4-piperidones (Reference 4). For the purpose of separating the individual compounds the mixtures of isomeric piperidoles were converted to salts of hydrogen chloride. By means of the esterification of the 1-alkenyl-2,5-dimethyl-4-ethyl-4-piperidole with chlorine anhydride of benzoic and phenylacetic acid corresponding 1-alkenyl-2,5-dimethyl-4-ethyl-4-piperidoles were produced as a mixture of stereochemical isomers. Synthetized were: benzoic and phenylacetic esters of 1-alkenyl-2,5-dimethyl-4-ethyl-4-piperidole (formulae IV - VIII). They were subjected to a pharmacological investigation with regard to their anesthetizing properities. It showed that phenylacetic esters of the λ-form of 1-crotyl-2,5-dimethyl-4-ethyl-4-piperidoles is remarkably more active than dicaine, however, its toxicity is twice as great.

Card 2/3

62-58-4-1o/32

Heterocyclic Compounds. Communication 59: Anesthetizing Synthetic Substances. XX. Synthesis of the Benzoic and Phenylacetic Esters 1-Alkenyl-2,5-Dimethyl-4-Ethyl-4-Piperidoles

There are 1 table, and 4 references, 3 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR i Kazakhskiy gosudarstvennyy universitet im. S. M. Kirova (Institute for Organic Chemistry imeni N. D. Zelinskiy AS USSR and Kazakh State University imeni S. M. Kirov)

SUBMITTED: November 2o, 1956

AVAILABLE: Library of Congress

1. Heterocyclic compounds 2. Benzoic esters--Synthesis
3. Phenylacetic esters--Synthesis

Card 3/3

AUTHORS: Nazarov, I. N., Sharifkanov, A. Sh., Danilova, K. F. SOV/62-58-6-14/37

TITLE: Heterocyclic Compounds (Geterotsiklicheskiye soyedineniya) Communication 60. Synthetic Analgesic Substances. XXI. Synthesis of Esters of the α-Form of 1-Alkenyl-2,5-Dimethyl-4-Piperidols (Soobshcheniye 60. Sinteticheskiye obezbolivayushchiye veshchestva. XXI. Sintez efirov α-formy 1-alkenil-2,5-dimetil-4-piperidolov)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 6, pp. 739 - 747 (USSR)

ABSTRACT: In the present paper the authors describe the synthetization of a number of new esters (of the α-form) of secondary 1-alkenyl--2,5-dimethyl-4-piperidols with a view of explaining the influence exercised by unsaturated nitrogen radicals and the effect produced by the character of the azyl rest upon the physiological activity of these compounds. By the interaction between the α-form of the 2,5-dimethyl-4-piperidol and halide derivatives of the allyl type various 1-alkenyl-(alkadienyl)-2,5-dimethyl--4-piperidols (Formulae I-VI) were synthetized with a high yield.

Card 1/3

Heterocyclic Compounds. Communication 60. Synthetic Anal- SOV/62-58-6-14/37
gesic Substances. XXI. Synthesis of Esters of the α-Form of 1-Alkenyl-2,5-
-Dimethyl-4-Piperidols

By the esterization of piperidols (Formulae I-VI) by means of acid chloroanhydrides complex esters (Formulae VII-XIX) were obtained. They were pharmacologically tested with respect to their anaesthetizing properties. Among the compounds investigated propion-and acetic esters of 1-crotyl-2,5-dimethyl-4-piperidol (Formulae XIII and XIV) showed very weak activity. All other esters investigated show high anaesthetizing activity and relatively low toxicity. There are 2 tables and 9 references, 8 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N.D.Zelinskogo i Kafedra organicheskoy khimii Kazakhskogo gosudarstvennogo universiteta im.S.M.Kirova (Institute of Organic Chemistry imeni N.D. Zelinskiy and Chair of Organic Chemistry of Kazakh State University imeni S.M.Kirov)

SUBMITTED: November 2o, 1956

Card 2/3

Heterocyclic Compounds. Communication 60. Synthetic Analgesic Substances. XXI. Synthesis of Esters of the α-Form of 1-Alkenyl-2,5--Dimethyl-4-Piperidols SOV/62-58-6-14/37

1. Esters--Synthesis 2. Esters--Physiological effects 3. Nitrogen radicals --Chemical effects

Card 3/3

SHARIFKANOV, A.Sh.; IBRANOV, P.S.

Heterocyclic compounds. Phenoxyacetic and benzoic esters of the α-forms of 1-crotyl- and 1-(γ-chlorocrotyl)-2,5-dimethyl-4-piperidino. Izv. AN Kazakh. SSR Ser. khim. no. 2:105-106 '60. (MIRA 14:5)
(Piperidinol)

NAZAROV, I.N.; SHARIFKANOV, A.Sh.; SARBAYEV, T.G.

Heterocyclic compounds. Synthetic anesthetics. Synthesis of benzoic esters of 1-n-propl and 1-n-butyl-2,5-dimethyl-4-ethynyl-4-piperidinols. Zhur. ob. khim. 30 no.9:2904-2908 S '60. (MIRA 13:9)

1. Kazakhskiy gosudarstvennyy universitet.
(Piperidinol) (Anesthetics)

SHARIFKANOV, A.Sh.; BESSONOVA, I.V.; ASANBEKOVA, A.

Heterocyclic compounds. Synthetic anesthetics. Synthesis of benzoic esters of 1-n-propl- and 1-n-butyl-2,5-dimethyl-4-ethyl-4-piperidinols. Zhur. ob.khim. 30 no.9:2909-2911 S '60. (MIRA 13:9)

1. Kazakhskiy gosudarstvennyy universitet.
(Piperidinol) (Anesthetics)

NAZAROV, I.N.; SHARIFKANOV, A.Sh.; YUSUPOV, S.A.

Heterocyclic compounds. Synthesis of benzoates of 1-alkenyl-2,5-dimethyl-4-vinyl-4-piperidinol. Zhur. ob. khim. 30 no.11:3608-3610 N'60. (MIRA 13:11)

1. Kazakhskiy gosudarstvennyy universitet.
(Piperidinol)

NAZAROV, I.N.; SHARIFKANOV, A.Sh.; YUSUPOV, S.A.; SARBAYEV, T.G.

Heterocyclic compounds. Synthesis of 2,5-dimethyl-4-ethynyl (vinyl and ethyl)-4-piperidinols. Zhur.ob.khim. 30 no.10:3267-3271 O '61. (MIRA 14:4)

1. Kazakhskiy gosudarstvennyy universitet.
(Piperidinol)

SHARIFKANOV, A.Sh.; SARBAYEV, T.G.

Heterocyclic compounds. Synthesis of benzoic esters of γ- and β-isomers of 1-(1-phenyl-1-propenyl)-2,5-dimethyl-4-ethynyl-4-piperidinol. Zhur.ob.khim. 31 no.9:2851-2853 S '61. (MIRA 14:9)

1. Kazakhskiy gosudarstvennyy universitet.
(Benzoic acid) (Piperidinol)

SHARIFKANOV, A.Sh.; SARBAYEV, T.G.

Heterocyclic compounds. Synthesis of phenoxyacetic, p-methoxyphenoxyacetic, and β-phenylmercaptopropionic esters of a γ-isomer of 1-(β-phenylallyl)-2,5-dimethyl-4-ethynil-4-piperidol. Zhur.ob.khim. 32 no.2:417-419 F '62. (MIRA 15:2)

1. Kazakhskiy gosudarstvennyy universitet.
(Esters)
(Piperidinol)

SHARIFKANOV, A.Sh.; SARBAYEV, T.G.

Heterocyclic compounds. Synthesis of benzoic, p-methoxyphenoxyacetic, and β-phenylmercaptopropionic esters of a γ-isomer of 1-(β-phenylethyl)-2,5-dimethyl-4-ethynil-4-piperidol. Zhur. ob.khim. 32 no.2:419-422 F '62. (MIRA 15:2)

1. Kazakhskiy gosudarstvennyy universitet.
(Esters)
(Piperidinol)

SHARIFKANOV, A.Sh.; SARBAYEV, T.G.

Heterocyclic compounds. Synthesis of benzoic esters of γ-isomers of 1-(γ-phenylallyl)- and 1-(β-phenylethyl)-2,5-dimethyl-4-vinyl-4-piperidinols. Zhur.ob.khim. 32 no.10:3172-3174 O '62. (MIRA 15:11)

1. Kazakhskiy gosudarstvennyy universitet.
(Piperidinol) (Benzoic acid)

SHARIFKANOV, A.Sh.; YUSUPOV, S.A.; AKHMETOVA, Sh.S.

Heterocyclic compounds. Synthesis of β-phenylmercaptopropionic esters of the α-form of 1-allyl- and 1-crotyl-2,5-dimethyl-4-piperidinols. Zhur.ob.khim. 32 no.10:3175-3176 O '62. (MIRA 15:11)

1. Kazakhskiy gosudarstvennyy universitet.
(Piperidinol) (Propionic acid)

SHARIFKANOV, A.Sh.; SARBAYEV, T.G.

Heterocyclic compounds. Synthesis of benzoic esters of γ- and β-isomers of 1-(β-N-morpholinoethyl)-2,5-dimethyl-4-ethynyl-4-piperidinol. Zhur.ob.khim. 32 no.10:3176-3179 O '62. (MIRA 15:11)

1. Kazakhskiy gosudarstvennyy universitet.
(Piperidinol) (Morpholine) (Benzoic acid)

SHARIFKANOV, A.Sh.; SARBAYEV, T.G.; YUSUPOV, S.A.

Heterocyclic compounds. Part 1: Configuration of 2,5-dimethyl-4-ethynyl (vinyl and ethyl)-4-piperidinols. Zhur.ob.khim. 32 no.8:2508-2514 Ag '62. (MIRA 15:9)

1. Kazakhskiy gosudarstvennyy universitet.
(Piperidinol) (Unsaturated compounds)

SOKOL'SKAYA, A.M.; SHARIFKANOV, A.Sh.; SARBAYEV, T.G.

Hydrogenation of β - and γ -forms of 2,5-dimethyl-4-ethinyl-4-piperidol. Izv.vys.ucheb.zav.; khim. i khim. tekh. 6 no.6: 965-969 '63. (MIRA 17:4)

1. Kazakhskiy gosudarstvennyy universitet imeni Kirova, kafedra organicheskoy khimii.

SHARIFKANOV, A.Sh.; MUKHAMETKALIYEV, T.M.; GAFAROVA, N.A.

Heterocyclic compounds. Part 1: Interaction of γ-piperidones with organolithium compounds. Zhur. ob. khim. 34 no. 3: 843-847 Mr '64. (MIRA 17:6)

1. Kazakhskiy gosudarstvennyy universitet.

SHARIFKHODZHAYEV, A.T.

Phagocyte activity of leukocytes in the radiation syndrome.
Probl. gemat.i perel. krovi 6 no.1:19-23 '61. (MIRA 14:2)
(RADIATION SICKNESS) (PHAGOCYTOSIS)

ARONOVA, Ye.R.; SHARIFKHODZHAYEV, A.T.; TIMOFEYEVA, M.Ye.

Detection of brucellosis among blood donors. Probl.gemat. i perel. krovi no.11:60-62 '61. (MIRA 15:1)

1. Iz Uzbekskogo nauchno-issledovatel'skogo instituta gematologii i perelivaniya krovi (dir. S.A. Agzamkhodzhayev, nauchnyy rukovoditel' - doktor med.nauk G.S. Suleymanova).
(BRUCELLOSIS) (BLOOD DONORS)

L 12359-66 EWT(1)/EWA(j)/T/EWA(b)-2 JK

ACC NR: AP5028177 SOURCE CODE: UR/0242/65/000/007/0055/0057

AUTHOR: Sharifkhodzhayev, A. T.

ORG: Uzbek Scientific Research Institute of Hematology and Blood Transfusion (Uzbekskiy nauchno-issledovatel'skiy institut gematologii i perelivaniya krovi)

TITLE: Changes in complement titer and Burnet's allergic test during chronic brucellosis in relation to treatment

SOURCE: Meditsinskiy zhurnal Uzbekistana, no. 7, 1965, 55-57

TOPIC TAGS: brucellosis, infective disease, animal disease, drug treatment

ABSTRACT: The complement titer in brucellosis patients was studied in relation to the severity and duration of the disease, method of therapy, and reaction to Burnet's allergy test. The titer was within normal limits (0.03-0.06) in 22 out of 223 patients examined prior to treatment, a little low (0.08-0.09) in 56, fairly low (0.1-0.15) in 105, and very low (0.2-0.25) in 40. In patients given blood transfusions, the titer rose and became normal during treatment and, especially, afterward. In 19 patients treated with antibiotics and vaccine, it was quite low during

Card 1/2

Card 2/2

DESYATCHIKOV, B.A., kand. ekon. nauk; GABZAILOV, G.F., kand. ekon. nauk; KADYROV, Z., nauchn. sotr.; ABDUSHUKUROV, T.; KALYAKIN, P.V., kand. ekon. nauk; FOKIN, A.I., kand. ekon. nauk; BAKIYEVA, R.A., nauchn. sotr.; IBRAGIMOV, M., nauchn. sotr.; KARDASI, A.A., kand. ekon.nauk; KADANER, E.A.; NIKONOV, F.D., nauchn. sotr.; ANTONETS, G.M.; ARTYKOV, A.A., kand. ekon. nauk; TRUSOV, A.N.; OVCHAROVA, M.A., nauchn. sotr.; TSOY,P., nauchn. sotr.; **KALYAKIN, P.V., kand. ekon. nauk, otv.** red.; DZHAMALOV, O.B., doktor ekon. nauk, red.; ARTYKOV, A., kand. ekon. nauk, red.; DESYATCHIKOV, B.A., kand. ekon. nauk, red.; SHARIFKHODZHAYEV, M., kand. ekon. nauk, red.; DESYATNIK, F.M., red.; GOR'KOVAYA, Z.P., tekhn. red.

[Economics of the machinery manufacture of Uzbekistan] Ekonomika mashinostroeniia Uzbekistana. Tashkent, Izd-vo AN Uzb.SSR, 1963. 289 p. (MIRA 16:12)

1. Akademiya nauk Uzbekskoy SSR, Tashkent. Institut ekonomiki.
(Uzbekistan--Machinery industry)

[illegible], E. .

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

Name	Title of Work	Nominated by
Alkperov, A	"[illegible] Azerbaydzhan SSR"	Academy of Sciences Azerbaydzhan SSR
Aliyev, G. A.		
Globuyev, [illegible]		
Leymalov, [illegible]		
Novale[illegible], [illegible]		
Salayev, [illegible]		
Sharifov, B. .		

SO: W-30604, 7 July 1954

SHARIFOV, E.F.; KHRZHANOVSKAYA, T.Ye.

Dynamics of some nutrients in meadow-Sierozem soils under forest stands in the Mili Steppe. Izv. AN Azerb. SSR. Ser. biol. i med. nauk no.5:109-114 '61. (MIRA 14:8)
(KURA LOWLAND--FOREST SOILS)

SHARIFOV, E.F.; GYUL'AKHMEDOV, A.N.; KHRZHANOVSKAYA, T.Ye.

Some characteristics of light-brown soils under pistachio and oak in the Sultanbud Woods. Izv. AN Azerb. SSR. Ser. biol. i med. nauk no.11:97-107 '61. (MIRA 15:3)
(AZERBAIJAN--FOREST SOILS)

SHARIFOV, E.F.; TAGIYEV, E.F.

Soil conditions and land improvement of industrial premises and problems of landscaping in Sumgait. Izv.AN Azerb.SSR.Ser.biol.i med.nauk no.5:59-67 '62. (MIRA 15:9)
(SUMGAIT--LANDSCAPE GARDENING)

SHARIFOV, E.F.

Relation of brown mountain-forest soils to the Crimean pine.
Izv.AN Azerb.SSR.Ser.biol.i med.nauk no.6:71-75 '62.
(MIRA 15:12)

(AZERBAIJAN--PINE) (AZERBAIJAN--FOREST SOILS)

SHARIFOV, E.F.

Raising chestnut oak in brown mountain forest and meadow forest lowland soils. Izv.AN Azerb.SSR.Ser.biol.nauk no.5:85-88 '64.
(MIRA 18:4)

SHARIFOV, El'mar Farkhad

[Some genetic characteristics of forest soils in Azerbaijan] Azerbajchan meshe torpaglarynyn bə'zi kenetik khususijjetleri. Baky, Azerbajchan SSR Elmler Akad. Neshrijjaty, 1964. 152 p. [In Azerbaijani] (MIRA 18:4)

L 11149-66 EWT(m)/EWP(j)/T/EWP(t)/EWP(b) JD/WM/WB/RM
ACC NR: AP6000335 SOURCE CODE: UR/0286/65/000/021/0035/0035

AUTHORS: Kuliyev, A. M.; Bragin, V. A.; Mamedov, I. A.; Konovalov, V. A.; Sadykhov, K. I.; Sharifov, F. R.; Zeynalov, S. D.; Mamedov, S. A.; Diadimov, G. L.; Negreyev, V. F.

ORG: none

TITLE: A method for protecting metals from corrosion. Class 22, No. 176022

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 21, 1965, 35

TOPIC TAGS: corrosion, corrosion protection, organic acid, carbon dioxide, hydrocarbon, asphalt, corrosion inhibitor

ABSTRACT: This Author Certificate presents a method for protecting metals from corrosion in a medium of low organic acids and carbon dioxide with the help of a corrosion inhibitor. To increase the degree of protection, hydrocarbon-soluble products of neutralizing acid asphalts are used as the inhibitor.

SUB CODE: 11/ SUBM DATE: 24Nov64

Card 1/1 UDC: 620.197.3

SHARIFOV, K.: LYAKHOVETSKAYA, YE.I.: IOFA, Z.A.

Adsorption

Effect of the halide ions on the adsorption of organic cations of surface iron. Z.A. Iofa, Ye. I. Lyakhovetskaya, Ye. I.; Sharifov, Dokl. AN SSSR 84, No. 3, 1952. 543-6

Moscow State Univ. im M. V. Lomonosov

Monthly List of Russian Accessions, Library of Congress, September 1952, UNCLASSIFIED

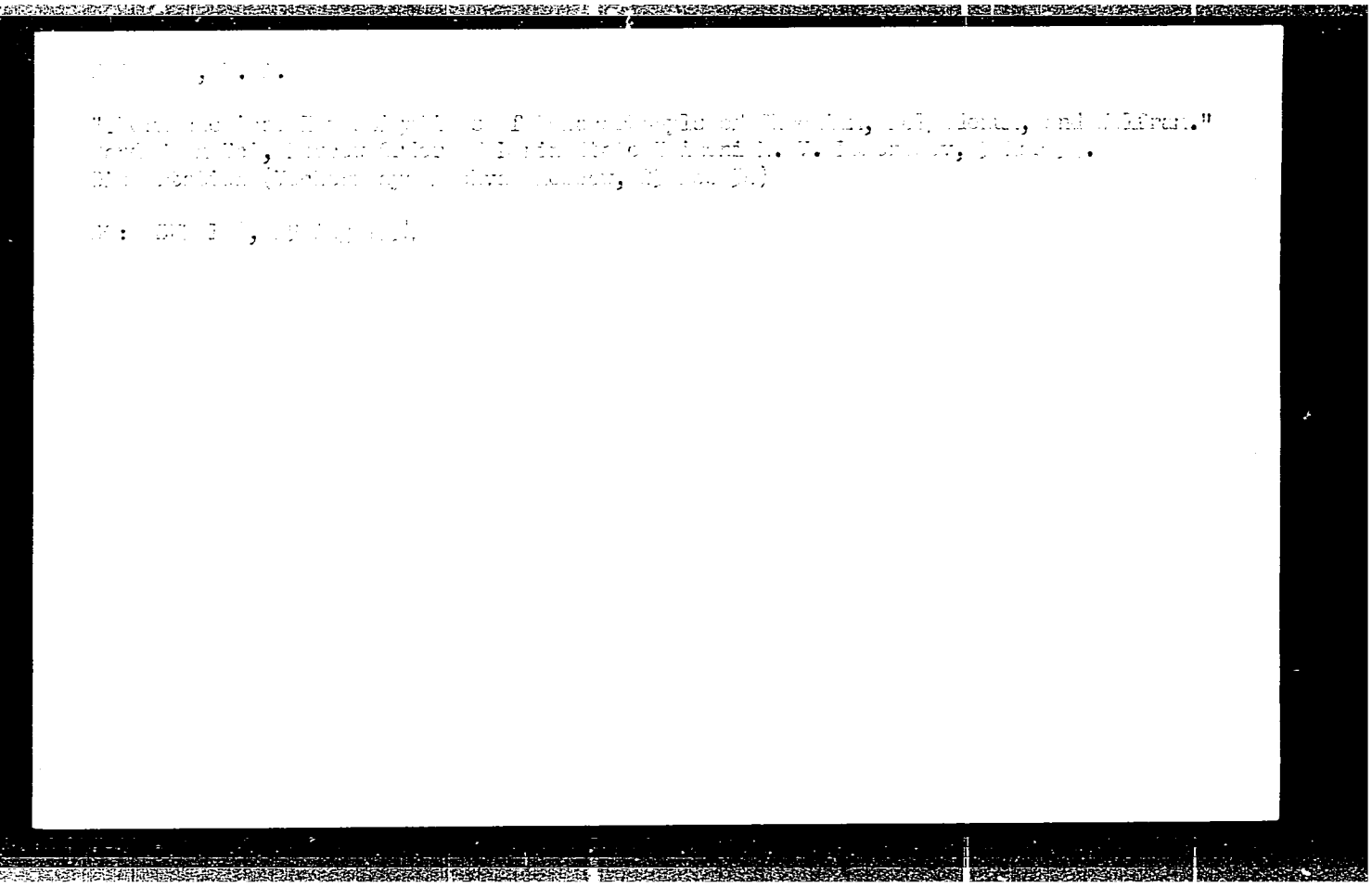
Sharifov, K. A.

✓Heats of combustion and heats of formation of chromium, tungsten, and molybdenum hexacarbonyls. K. A. Sharifov and T. N. Rezukhina. *Trudy Inst. Fiz. i Mat., Akad. Nauk Azerbaidzhan. S.S.R., Ser. Fiz.* 6, 53–61(1953); *Referat. Zhur., Khim.* 1954, No. 30309.—Heats of combustion were obtained at 20° and recalcd. to 25°. $Cr(CO)_6$, $Q_v^{25} = 452.61$ and $Q_p^{25} = 451.23$; $Mo(CO)_6$, $Q_v^{25} = 507.58$ and $Q_p^{25} = 506.69$; $W(CO)_6$, $Q_v^{25} = 540.67$ and $Q_p^{25} = 539.79$ kcal./mole. The error of this detn. is ±0.02–0.035%. From heats of formation of Cr_2O_3 (Roth and Becker, *C.A.* 19, 24, 1789), Mo_2O_3 and W_2O_3 (Moose and Parr, *C.A.* 19, 1084) and of CO_2 (Hubbard, *et al.*, *C.A.* 43, 1639*b*) and the detd. heats of combustion of the hexacarbonyls, the heats of formation of the carbonyls were calcd. to be $Cr(CO)_6$, $Q_v^{25} = Q_p^{25} = 267.08$; $Mo(CO)_6$, $Q_v^{25} = 233.12$; and $W(CO)_6$, $Q_v^{25} = 219.29$ kcal./mol.

M. Hoseh

SHARIFOV,K.A.; REZYKHINA,T.N.

Heats of combustion and heats of formation for chromium, tungsten, and molybdenum hexacarbonyls. Uch.zap.Mosk.un. no.164:115-121 '53. (MLRA 8:7)
(Thermochemistry) (Carbonyls)



Sharifov, K. A.

Thermodynamic studies at low temperatures. VI. Heat capacity of molybdenum hexacarbonyl between 10.8° and 310°K. Enthalpy and entropy of $Mo(CO)_6$ at 298.16°K. D. N. Astrov, E. S. Itskevich, and K. A. Sharifov (State Inst. Measures and Measuring Apparatus, Moscow). *Zhur. Fiz. Khim.* 29, 424–7(1955); cf. *C.A.* 50, 1437c.—The molar heat capacity (C_p) of $Mo(CO)_6$ was measured at 1 or 2° intervals in the temp. (T) range 10.63 to 302.1°K. by means of a previously described app. and method (*C.A.* 48, 13395e). The enthalpy and entropy, measured at 298.16°K., were 10.80 ± 0.03 kcal./mole and 78.17 ± 0.25 cal./mole-degree, resp. The temp. dependence of C_p above 11°K. does not agree with the formula of Debye, but is in accord with the empirical equation $C_p = 0.00357T^{1.7}$ between 11 and 18°K. Values of C_p at 11.87, 17.61, 42.52, 80.47, 152.95, and 301.34°K. were 1.59, 4.14, 17.04, 26.76, 39.16, and 58.07 cal./mole-degree, resp.

I. W. Loweberg, Jr.

SHARIFOV, K. A.

Distr: 4E4j

Equilibrium constants of reactions forming hexacarbonyls of chromium, molybdenum, and tungsten. Ya. I. Gerasimov and K. A. Sharifov. *Izvest. Akad. Nauk Azerbaidzhan. S.S.R.* 1956, No. 10, 29–38.—From known data, thermodynamic functions for Cr, Mo, and W hexacarbonyls are calcd. The standard entropies, $S^{\circ}_{298.16}$ are, resp., 77.0, 78.17, and 79.3 cal./mol. degree for $Cr(CO)_6$, $Mo(CO)_6$, and $W(CO)_6$. For the reaction $M(metal)_{(solid)} + CO_{(gas)} \rightleftarrows M(CO)_{6(gas)}$ the values of log K_p at 298.16, 335.66, and 378.16°K. are: for Cr, 15.5, 9.5, and 4.9 (all ±0.9), for Mo, 7.9, 2.9, −1.2 (all ±0.4), and for W, −1.6, −5.7, and −8.8 (all ±0.9). The equil. of the reaction forming $W(CO)_6$ is discussed, and the standard free energies of formation of the hexacarbonyls from the elements are also calcd. Robert F. Adamsky

KERIMOV, I.G.; KARASHARLY, K.A.; SHARIFOV, K.A.

Normal combustion rates of nitrogen dioxide mixtures with aromatic hydrocarbons in a bunsen burner flame. Trudy Inst. fiz. i mat. AN Azerb. SSR. 9:155-160 '58. (MIRA 12:2)
(Combustion) (Nitrogen oxides) (Hydrocarbons)

GADZHIYEV, S.N.; SHARIFOV, K.A.

Heat of formation of selenium dioxide. Dokl.AN Azerb.SSR 15 no.8:667-671 '58. (MIRA 13:1)

1. Institut fiziki AN AzerSSR.
(Selenium oxides) (Heat of formation)

GADZHIYEV, S.N.; SHARIFOV, K.A.

Determining the heat of formation of tin selenide by synthesis in a calorimetric bomb [im Azerbaijani with summary in Russian]. Dokl. AN Azerb.SSR 16 no.7:659-662 '60. (MIRA 13:9)

1. Institut fiziki AN AzerSSR.
(Tin selenide) (Heat of formation)

24024
S/076/61/035/005/008/008
B101/B218

9.4320
24.5500

AUTHORS: Gadzhiyev, S. N. and Sharifov, K. A. (Baku)

TITLE: Use of thermistors in calorimetry

PERIODICAL: Zhurnal fizicheskoy khimii, v. 35, no. 5, 1961, 1147-1149

TEXT: The authors propose the use of MMT-4 (MMT-4) thermistors in calorimeters with isothermal shells. The MMT-4 thermistors (resistance 3528.28 ohms) were calibrated at 25°C by means of a mercury thermometer (error: ±0.0005°C). Temperature was varied between 23 and 27°C, and the resistance of the thermistor was measured with a Wheatstone bridge every 0.5°C. From the experimental data, the authors derived the equation for the resistance R: $\log R = -0.03487 + 1067.981/T$ (1). Since the resistance of the thermistor is also dependent on the voltage, the latter was kept constant. A voltage of 0.5 v was taken as an optimum at which the volt-ampere characteristic is linear. Tests showed that MMT-4 thermistors are not stable. Within 58 days the resistance changes by 1 ohm, which corresponds to 0.0095°C. As this change was equal for all temperatures, it is of no significance in the calorimetric determination of ΔT. The

Card 1/3

Use of thermistors in calorimetry

correction for heat exchange was calculated from the equation $T = a + bR$ (2). Differentiation of Eq. (2) leads to $dR/R = -2460dT/T^2$. In the initial and final sections, the temperature takes a linear course: $v = \Delta T/\Delta t$. If t is set equal to 1, one obtains $v = -T^2\Delta R/2460R$; $v_o = -\vartheta_o^2\Delta R_o/2460R_o$; $v_n = -\vartheta_n^2\Delta R_n/2460R_n$. Here, v_o, v_n denote the temperature change, and ϑ_o, ϑ_n the average temperature of the system at the beginning and at the end of the experiment. If $-\vartheta_o^2/2460R = C$ and $-\vartheta_n^2/2460R_n = C_n$, one obtains $v_o = C_o\Delta R_o$ (3); $v_n = C_n\Delta R_n$ (4). R_o and R_n are the changes in resistance at the beginning and at the end of the experiment. Then, the correction equations read:

$$\Sigma v_0 = \frac{C_n\Delta R_n - C_0\Delta R_0}{R_n - R_0}\left[\frac{r_n + r_0}{2} + \sum_1^{n-1} r - nR_0\right] + nC_0\Delta R_0. \qquad (5)$$

$$\sum v_n = \frac{C_n\Delta R_n - C_0\Delta R_0}{R_n - R_0}\left[\frac{r_n + r_0}{2} + \sum_1^{n-1} r - nR_n\right] + nC_n\Delta R_n. \qquad (6)$$

Card 2/3

Use of thermistors in calorimetry

Here, $\sum v_0$, $\sum v_1$ are the corrections for heat exchange, R_0 and R_n the mean values of resistance at the beginning and at the end of the experiment, r_0, r_1 the final values of resistance during the initial and the main period, and n is the number of measurements in the main period. If one works always with the same temperature interval, C_0 and C_n may be calculated in advance, which simplifies work appreciably. According to the authors, their method allows temperature changes to be measured with an error of ±0.005°C. There are 14 references: 12 Soviet-bloc and 2 non-Soviet-bloc.

ASSOCIATION: Akademiya nauk Azerbaydzhanskoy SSR, Institut fiziki (Academy of Sciences, Azerbaydzhanskaya SSR, Institute of Physics)

SUBMITTED: October 1, 1960

Card 3/3

SHARIFOV, K.A.

Temperature dependence of the width of the forbidden band of uniform solids. Izv. AN Azerb. SSR. Ser. fiz.-tekh. i mat. nauk no.1:71-74 '64. (MIRA 17:9)

L 29944-65 EPF(c)/EPR/EWT(1)/EWP(j)/EWT(m)/EWP(b)/EWP(e) Pc-4/Pi-4/Pq-4/Pr-4/
ACCESSION NR: AP4044448 Ps-4 BPL RM/WH/ S/0076/64/038/008/2070/2072
WW/JW/JD

AUTHOR: Sharifov, K. A.; Gadzhiyev, S. N.

TITLE: A method for the determination of enthalpy of high temperature processes

SOURCE: Zhurnal fizicheskoy khimii, v. 38, no. 8, 1964, 2070-2072

TOPIC TAGS: indium phosphide, enthalpy, calorimetry

ABSTRACT: A method is developed for measuring heats of formation of compounds, particularly semiconductors by direct synthesis or decomposition of the investigated material in a calorimeter and by direct measurement of the thermal effect of this process. Using this method thermal decomposition of InP with its enthalpy of formation ΔH° was determined for the first time. The determination was made in a V-04 calorimeter with an isothermal shell. The calorimeter was a microfurnace with a thin-walled quartz tube wound with heating coil. A 6-g sample of InP in the tube was heated and the heat due to the current was measured by a calibrated counter. The determined standard enthalpy of formation of indium phosphide $\Delta H^{\circ}_{298}(InP_{cub}) = 21.1 \pm 1.0$ kcal/mole. The authors stated that it was not possible to determine this by any other existing method. Orig. art. has: 1 figure.

Card 1/2

L 29944-65
ACCESSION NR: AP4044448

ASSOCIATION: Fizicheskiy institut Akademii nauk Azerbaydzhanskoy SSR (Physics Institute, Academy of Sciences, Azerbaydzhan SSR)

SUBMITTED: 19Jul63 ENCL: 00 SUB CODE: TD, GC

NO REF SOV: 008 OTHER: 003

Card 2/2

9,4177
24,7600 (1043, 1158 only)

S/020/61/136/006/013/024
B103/B203

AUTHORS: Gadzhiyev, S. N. and Sharifov, K. A.

TITLE: Determination of the formation heat of indium antimonide by fusion in a calorimetric bomb

PERIODICAL: Doklady Akademii nauk SSSR, v. 136, no. 6, 1961, 1339-1341

TEXT: The authors developed new methods of determining the formation heat of binary semiconductor compounds since the usual methods are not always applicable. They heated a stoichiometric mixture of indium and antimony in a sealed quartz ampoule evacuated to 10^{-3} mm Hg at 700°C for 4 min. The ampoule was envelopped by nichrome wire which was fixed by a paste of kaolin , borax, and water, and protected by a tantalum coat. The ampoule was mounted in a calorimetric bomb developed at the termicheskaya laboratoriya Moskovskogo universiteta (Thermal Laboratory of Moscow University) (Fig. 1) and connected to a shaking device. The electric motor driving this device was switched on only during the heating process, and was protected from the heat source by a silver screen. A high-precision current

Card 1/4

Determination of the formation...

meter (produced by the "Etoalon" Works) was used in measuring the electric work. The temperature change in the calorimeter was determined with an MMT-4 (MMT-4) thermistor. Calorimeter and current meter were both calibrated. The calorific value of the calorimeter was 2904.4 ± 0.6 cal/°. One revolution of the current-meter pointer corresponded to 41.40±0.02 cal. The authors stress that the experiments must be carried out on a high level to obtain results of sufficient accuracy. 6.000 cal. were produced during the heating of the empty and filled ampoule. The temperature on the calorimeter increased by 2.15°C in the case of the empty, and by 2.30°C in the case of the filled ampoule. Hence, the authors conclude that 0.15°C correspond to the heat effect of the reaction. The principal experiment took 15 min. The bomb was filled with nitrogen (30 atm pressure) which reduced the time of experiment and may counteract a possible explosion in the case of substances with high vapor tension. On the basis of their results, the authors state that only cubic InSb forms in the ampoule. This was shown by an X-ray analysis conducted by K. P. Mamedov and Z. D. Nuriyeva. The chemical analysis (Ref. 5) showed that the components were added at 96-100%. The standard formation heat found by the authors for InSb is

Card 2/4

20637
S/020/61/136/006/013/024
B103/B203

Determination of the formation...

$\Delta H^{o}InSb_{cub} = -3.89 \pm 0.04$ kcal/g-atom. By comparison they found that their results agree well with those obtained by other researchers. The ΔH of InSb is not large; therefore, InSb is more similar to alloys than to saline compounds. The authors think that their methods may also be used for multicomponent systems. There are 1 figure, 2 tables, and 6 references: 2 Soviet-bloc and 2 non-Soviet-bloc.

ASSOCIATION: Institut fiziki Akademii nauk AzerbSSR (Institute of Physics of the Academy of Sciences Azerbaydzhanskaya SSR)

PRESENTED: October 6, 1960, by V. N. Kondrat'yev, Academician

SUBMITTED: October 5, 1960

Card 3/4

S/081/62/000/009/014/075
B158/B101

AUTHORS: Gadzhiyev, S. N., Sharifov, K. A.

TITLE: Thermochemical investigations of gallium chalcogenides

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 9, 1962, 58, abstract 9B380 (Sb. "Vopr. metallurgii i fiz. poluprovodnikov". M., AN SSSR, 1961, 43-45)

TEXT: A calorimeter bomb was used to measure the enthalpy of combustion of Ga in oxygen forming Ga_2O_3 (rhombohedric), and that of Ga_2Se_3 in oxygen forming Ga_2O_3 and SeO_2 (the resulting values being -258.6 ± 0.4 and -369.9 kcal/mole respectively). The Ga in a crucible of α - Al_2O_3 was ignited with a cotton thread. The Ga_2Se_3 in a quartz crucible coated with Al_2O_3 was burnt in the form of tablets containing a mixture with benzoic acid (in the ratio 3:0.4). Combustion of the Ga_2Se_3 was incomplete. The mean specific heats of Ga_2S_3, Ga_2Se_3, and Ga_2Te_3 in the

Card 1/2

Thermochemical investigations of...

range 25 - 100°C were also measured. The enthalpy of formation of Ca_2Se_3 was calculated as 110 ± 5 kcal/mole, this value being regarded as preliminary. A review is given of published data on the enthalpies of formation of Ca_2O_3 and Ca_2Se_3. [Abstracter's note: Complete translation.]

Card 2/2

GADZHIYEV, S.N.; SHARIFOV, K.A.

Enthalpy of the formation of tellurium dioxide. Izv.AN Azerb. SSR.Ser.fiz.-mat.i tekh.nauk no.1:47-53 '62. (MIRA 15:4)
(Enthalpy) (Tellurium oxide)

GADZHIYEV, S.N.; AGARUNOV, M.Ya.; SHARIFOV, K.A. (Baku)

Measurement of small temperature differences by means of a thermistor. Zhur. fiz. khim. 36 no.4:897-899 Ap '62. (MIRA 15:6)

1. Institut fiziki AN Azerbaydzhanskoy SSR.
(Thermistors) (Temperature--Measurement)

NADZHAFOV, Yu.B.; SHARIFOV, K.A.

Heat capacity of gallium telluride. Trudy Inst. fiz. AN Azerb. SSR 11: 31-35 '63. (MIRA 16:4)

(Gallium telluride--Thermal properties)

L 17484-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD/JW

ACCESSION NR: AP3004611 S/0233/63/000/002/0053/0054

AUTHORS: Sharifov, K. A.; Gadzhiyev, S. N.; Garibov, I. M. 58

TITLE: The enthalpy of formation of indium arsenide

SOURCE: AN AzerbSSR. Izv. Ser. fiziko-matem. i tekhn, nauk, no. 2, 1963, 53-54

TOPIC TAGS: enthalpy, indium arsenide

ABSTRACT: The determination of the enthalpy of formation of indium arsenide is accomplished by direct synthesis of the substance from the elements in the calorimetric bomb described by the authors in a previous article (DAN SSSR, 136, no. 6, 1961, 1339). InAs has a melting temperature of 942C. The reaction was carried with 4g of 99.999% pure indium and a slight excess of arsenic of 99.99% purity. The degree of conversion was tested through distillation of the unreacted arsenic residue in vacuum at 0.1 mm Hg and 600-650C. X-ray analysis shows that InAs is present only in cubic modification. The enthalpy results agree with the data given by Gutbier but disagrees with other results given in the literature. Orig. art. has: 1 table.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 15Aug63 ENCL: 00

SUB CODE: PH,CH NO REF SOV: 004 OTHER: 004

Card 1/1

GADZHIYEV, S.N.; SHARIFOV, K.A.

Use of thermistors in calorimetry. Zhur. fiz. khim. 35 no.5: 1147-1149 My '61. (MIRA 16:7)

1. Institut fiziki AN Azerbaydzhanskoy SSR, Baku.
(Thermistors) (Calorimetry)

SHARIFOV, K.A.

Interrelation between the width of the forbidden zone of semiconductors and their heat of atomization. Substances of the composition AB. Dokl. AN Azerb. SSR 19 no.3:23-25 '63. (MIRA 17:8)

1. Institut fiziki AN Azerb. SSR. Predstavlena akademikom AN AzSSR M.F. Nagiyevym.

S/0249/63/019/005/0011/0015

ACCESSION NR: AP3009757

AUTHOR: Sharifov, K. A.

TITLE: The relationship between width of the forbidden band of semiconductors and their heat of atomization (Presented by Academician M. F. Nagiyev AN Azerbaidzhan SSR)

SOURCE: AN AzerbSSR. Doklady*, v. 19, no. 5, 11-15, 1963

TOPIC TAGS: forbidden band, semiconductor, atomization, diamond, zinc blende, Zn, S, Se, Cd, Te, Hg, In, As, Sb, Ga, P, Al, Si, Sn, C, polarity, chemical bond, metal, isotropic structure

ABSTRACT: Starting with an equation from his previous work (DAN Azerb. SSR, 1963, 3, 27), the author derives an expression for the width of the forbidden band as a function of the heat of atomization: $\Delta E_0 = q_0 (\Omega - \Omega_0^0)$, where ΔE_0 is the width of the forbidden band at 0°K, q is a constant, Ω is the energy of atomization under standard conditions (temperature of 298K and pressure of 1 atm), and Ω_0^0 is the energy of atomization for the unknown material at 0°K. The author compares computed values with experimental data for a number of substances, and the results are shown

Card 1/3

ACCESSION NR: AP3009757

in Fig. 1 (see enclosure). It is concluded that for the given monotypical substances $\Delta E_0 - \Delta E = k_1 \Delta E$ and $\frac{\partial \Delta E}{\partial T} \approx k_2 \Delta E$, where k_1 and k_2 are proportionality factors. It is clear that lines characterizing $^{A}{}^{I}B^{VII}{}_{2}$ (in the figure) must always be found to the left of all others, since the bond in them is more heteropolar. If someone succeeds in synthesizing AlBi and InBi, the first will prove to be a semiconductor with $\Delta E_0 > 0.05$ ev and the second a metal with $\Delta E_0 = 0.55$ ev, since it is to be expected that $\Delta H^{\circ}_{298}(AlBi) > 0$ and $\Delta H^{\circ}_{298}(InBi) < H^{\circ}_{298}$ (Insb); $\Delta H^{\circ}_{298}(InSb) = -7.8$ kcal/mole. With increase in polarity of the chemical bond, the width of the forbidden band increases. This conclusion is in agreement with the opinions of many authors. The present author notes that the formula $\Delta E_0 = q_0(\Omega - \Omega^{\circ}_0)$ may be applied to both simple and complex substances having any isotropic structure (and not only to substances with the structure of ZnS or diamond). Orig. art. has: 1 figure, 1 table, and 6 formulas.

ASSOCIATION: Institut fiziki (Institute of Physics)

SUBMITTED: 22May63 DATE ACQ: 30Sep63 ENCL: 01

SUB CODE: PH NO REF SOV: 006 OTHER: 009

Card 2/3

SHARIFOV, K.A.

Interrelation between the width of the forbidden zone of semiconductors and the heat of their atomization. Dokl. AN Azerb. SSR 19 no.9:15-19 '63. (MIRA 17:8)

1. Institut fiziki AN AzSSR. Predstavlena akademikom AN Azerbaydzhanskoy SSR M.F. Nagiyevym.

SHARIFOV, K.A.; GADZHIYEV, S.N.; AGARUNOV, M.Ya.

Use of thermistors in calorimetry. Zhur.fiz.khim. 37 no.10:2368-2370 O '63. (MIRA 17:2)

1. Institut fiziki AN Azerbaydzhanskoy SSR.

L 2138-65 EWT(m)/EWP(q)/EWP(b) IJP(c)/BSD/ASD(p)-3/AFETR/ASM(p)-2/AEDC(a)/
AFWL/SSD/ESD(t) JD/JW S/0233/64/000/002/0085/0087
ACCESSION NR: AP4044628

AUTHORS: Sharifov, K. A.; Gadzhiyev, S. N.; Agarunov, M. Ya.

TITLE: Enthalpy of formation of gallium antimonide

SOURCE: AN AzerbSSR. Izvestiya. Seriya fiziko-tekhnicheskikh i matematicheskikh nauk, no. 2, 1964, 85-87

TOPIC TAGS: gallium antimonide, enthalpy, thermodynamic calculation, calorimeter

ABSTRACT: The enthalpy was measured with a calorimetric setup using an isothermal shell described by the authors elsewhere (Izv. AN Azerb. SSR, seriya fiz.-matem. i tekhn. nauk 1962, no. 7, 47), with the calorimeter temperature measured with a thermistor using a procedure developed by the authors (Zh. fizich. khimii v. 35, no. 5, 1147, 1961; v. 36, no. 4, 887, 1962; v. 37, no. 10, 2368, 1963). The enthalpy of formation of gallium antimonide was measured by a method

Card 1/2

L 2138-65
ACCESSION NR: AP4044628

involving direct synthesis in a calorimetric bomb likewise developed by the authors (DAN SSSR v. 136, no. 6, 1339, 1961). Those steps in the procedure which are not described elsewhere are briefly mentioned here. The value obtained for the enthalpy of GaSb production at 298K is -10.7 ± 0.6 kcal/mole = -44770 ± 2500 J/mole, which is compared with an experimental value 9.94 ± 0.44 and calculated values 13.3 and 12.2, obtained elsewhere. Orig. art. has: 2 figures and 2 tables.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00

SUB CODE: TD, MT NR REF SOV: 005 OTHER: 003

Card 2/2

ACCESSION NR: AP4041489 S/0249/64/020/003/0031/0035

AUTHOR: Sharifov, K. A.

TITLE: The relationship between the width of the prohibited zone of a solid and its thermodynamic properties

SOURCE: AN AzerbSSR. Doklady*, v. 20, no. 3, 1964, 31-35

TOPIC TAGS: homogeneous solid, crystalline solid, prohibited zone, forbidden zone, semiconductor, atomization energy, lattice energy, prohibited zone width, semiconductor heat capacity, semiconductor internal energy, characteristic temperature

ABSTRACT: In continuation of earlier work (Sharifov K. A. "Izv. AN Azerb. SSR", seriya fiz.-mat. i tekhn. nauk 1964, No. 1) in which the temperature dependence of ΔE (the width of the prohibited zone of the semiconductor) on absolute temperature was investigated for homogeneous isotropic solids, the author extends the derived formulas to crystalline solids and shows that in this case the lattice energy must be substituted for the atomization energy. As before, since the width of the prohibited zone is proportional to the atomization (lattice) energy, and this is dependent on the temperature, the relationship between ΔE and temperature is given by

$$\Delta E_{T_2} - \Delta E_{T_1} = k(H_{T_2} - H_{T_1}), \quad (1)$$

Card 1/3

ACCESSION NR: AP4041489

where H is enthalpy and the coefficient k is a constant for a given substance. By differentiation, one obtains the temperature coefficient as

$$\beta = -\frac{\partial \Delta E}{\partial T} = \kappa C_p^s \qquad (2)$$

where C_p^s is the heat capacity of the semiconductor in the solid state. Graphs are presented in the article showing good agreement between theoretical and experimental data (taken from the literature) for the inverse relationship between Δ E and temperature in Ge, InSb and ZnS. If the coefficient k is unknown, it is still possible to calculate Δ E at a particular temperature, provided only that the value at two other temperatures is known, from the relationships

$$\frac{\Delta E_0 - \Delta E_{T_1}}{\Delta E_0 - \Delta E_{T_2}} = \frac{u_{\tau_1} - u_0}{u_{\tau_2} - u_0}, \qquad \frac{\beta_{T_1}}{\beta_{T_2}} = \frac{C_{\tau_1}}{C_{\tau_2}} \qquad (3)$$

where u is the internal energy (values for which are readily available in the literature) and τ is the reduced temperature = Θ/T where Θ is either the Debye or Einstein characteristic temperature. The author points out, however, that these equations are less exact than those involving k. Orig. art. has: 3 figures and 19 formulas.

Card 2/3

ACCESSION NR: AP4041489

ASSOCIATION: Institut fiziki Akademii nauk Azerbaydzhanskoy SSR (Institute of Physics, Academy of Sciences, Azerbaijan SSR)

SUBMITTED: 05Oct63 ENCL: 00

SUB CODE: TD, SS NO REF SOV: 007 OTHER: 004

3/3

Card

SHAMIKOV, K.A., GADZHIYEV, S.N.

Method of determining the enthalpy of high-temperature processes. Zhur.fiz.khim. 38 no.8:2070-2072 Ag '64. (MIRA 18:1)

1. Fizicheskiy institut AN Azerbaydzhanskoy SSR.

S/0020/64/157/002/0430/0432

ACCESSION NR: AP4042214

AUTHOR: Sharifov, K. A.; Abbasov, A. S.

TITLE: Relationship between the width of forbidden zone and Gibbs free energy of solid nonmetals.

SOURCE: AN SSSR. Doklady*, v. 157, no. 2, 1964, 430-432

TOPIC TAGS: Gibbs free energy, forbidden zone, semiconductor, atomization free energy, thermodynamics

ABSTRACT: In recent years a great interest has been aroused in relating the width of the forbidden zone of semiconductor ΔE and its energy (thermodynamic) properties. The width of forbidden zone ΔE must depend on the strength of the chemical bond. The stronger the bond the greater is ΔE. Since there are no direct methods for measuring bond energy in solids use is made of some property of the substance which may characterize it, at least approximately. Thus, one may use ΔH, but it is a characteristic of the system and not of the phase. The relationship $\Delta E = q(\Omega - \Omega^{\circ})$ after thermodynamic treatment enables correlation of ΔE with such parameters as internal energy, heat capacity and Debye

Card 1/4

L 35089-65 EWA(h)/EWT(1)/EWG(m)/T Pz-6/Peb IJP(c) AT

ACCESSION NR: AP5006701 S/0076/65/039/002/0488/0490

19
18
B

AUTHOR: Sharifov, K. A.

TITLE: The thermodynamic interpretation of the width of the forbidden zone

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 2, 1965, 488-490

TOPIC TAGS: forbidden zone width, semiconductor thermodynamics, semiconductor electron transition, forbidden zone

21

ABSTRACT: At present, the width of the forbidden zone (ΔE) of a nonmetallic solid denotes the energy necessary for the transfer of an electron from the top of the valence zone to the bottom of the conduction zone. From the viewpoint of thermodynamics, such a specification is not sufficiently sharp since it is not clear which kind of energy is being considered during the definite electron transition from one zone into another. To clarify the conditions leading to a definite transition, the author compared the processes taking place within the semiconductor with other well-known chemical processes and, with the help of thermodynamic potentials, supplied a thermodynamic interpretation of the forbidden zone of nonmetallic solids. Equations are derived which connect the width of this zone and its temperature dependence with the thermodynamic properties of the

Card 1/2

L 35089-65
ACCESSION NR: AP5006701

crystal. Orig. art. has: 19 formulas, 1 figure, and 1 table.

ASSOCIATION: Institut fiziki, Akademiya nauk AzerbSSR (Physics institute, Academy of sciences, AzerbSSR)

SUBMITTED: 08Feb64 ENCL: 00 SUB CODE: SS

NO REF SOV: 008 OTHER: 007

Card 2/2

GADZHIYEV, S.N.; NADZHAFOV, Yu.B.; SHARIFOV, K.A.

Synthesis of semiconductor compounds with volatile components. Izv. AN Azerb. SSR. Ser.fiz.-mat. i tekh.nauk no.5:51-54 '61. (MIRA 15:2)

(Semiconductors)

S/081/61/000/017/025/166
B102/B138

AUTHORS: Sharifov, M.Yu., Kofman, R.G., Royzman, B.E.

TITLE: Distribution of vanadium and strontium in the Zaglik alunite bed

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 17, 1961, 102, abstract 17I65 (Akad. Dokl. AN AzerbSSR, v. 16, no. 11, 1960, 1083 - 1087)

TEXT: The Zaglik alunite bed is confined to the southeast side of the Dashkesan anticlinorium compounded with Jurassic sedimentary-effusive rocks and directly coherent with alunitized tuffite Kimeridgian deposits. Two ore bands in it are distinctive in chemical composition. The V and Sr distribution in the alunites was studied by semiquantitative spectral analysis. The V content ranged from $1 \cdot 10^{-3}$ to $1 \cdot 10^{-1}$%. In the gangue sections it was not higher than 0.03%, and reached 0.1% in the alunitized rocks. The presence of limestone seams causes a considerable decrease in the quantity of V. The Sr content varied from 0.006 to 0.3%. A

Card 1/2

Card

L 06493-67 EWT(m) DJ
ACC NR: AP6028571 (A) SOURCE CODE: UR/0316/66/000/003/0003/00

28
B

AUTHOR: Sadykhov, K. I.; Sharifov, R. R.

ORG: Institute of Chemistry of Additives, AN AzerbSSR (Institut khimii prisadok AN AzerbSSR)

TITLE: Preparation and study of sulfonates from commercial oils of Baku crudes

SOURCE: Azerbaydzhanskiy khimicheskiy zhurnal, no. 3, 1966, 3-10

TOPIC TAGS: sulfonation, sulfonic acid, lubricating oil, lubricant additive

ABSTRACT: In order to obtain highly effective oil-soluble sulfonates in high yields, sulfonation with oleum was carried out on various commercial Baku oils; calcium and barium sulfonic acids were thus obtained, and their effectiveness as wetting additives to lubricating oils was tested. Oil solutions of sulfonates were shown by good yields by sulfonating oils with molecular weights above 400. Oil solutions of calcium and barium sulfonates differ in their effectiveness when added in the amount of 10% to AS-10 oil. The best wetting and anticorrosive properties are shown by barium and calcium sulfonates obtained by sulfonating D-11 diesel oil. The difference in the effect of sulfonate additives on the oils is due to the varied structure of the aromatic hydrocarbons entering into the composition of the sulfonate from the commercial oils studied. The best sulfonate additive tiveness is obtained from selective-solvent-refined oil

1 Card

L 06493-6

ACC NR: AP6028571

(D-11), since heavy aromatic hydrocarbons are no longer present and the content of tars has been reduced (from 7.93 to 2.42%). Orig. art. has: 3 tables.

SUB CODE: 11/ SUBM DATE: none

Card 2/2

MUSAYEV, M.A.; SHAMIFOVA, E.G.

Effect of ionizing radiations on the variability of different tomato varieties in the Apsheron Peninsula. Izv. AN Azerb. SSR. Ser. biol. i med. nauk no.6:43-50 '60. (MIRA 14:9)
(PLANTS, EFFECT OF GAMMA RAYS ON)
(APSHERON PENINSUAL--TOMATOES)

MAMEDOV, Shamkhal; GARIBZADE, F.; SHARIFOVA, F.; KOVAL'SKAYA, I.

Glycol ethers and their derivatives. Part 80: Synthesis of alkoxymethyl ethers of 1,3-dichloro-2-propanol. Zhur. ob. khim. 34 no.9:2868-2873 S '64. (MIRA 17:11)

1. Institut neftekhimicheskikh protsessov AN AzerSSR.

MAMEDALIYEV, Yu.G.; MAMEDOV, Mageram; GUSEYNOV, M.M.; SHARIFOVA, M.R.; MEKHTIYEVA, F.A.

Synthesis of vinyl chloride by the chlorination of ethylene in a fluidized catalyst bed. Dokl. AN SSSR. 144 no.6:1309-1311 Je '62. (MIRA 15:6)

1. Institut neftekhimicheskikh protesessov Akademii nauk Azerbaydzhanskoy SSR.
2. Chelen-korrespondent Akademii nauk SSSR (for Mamedaliyev).
(Ethylene) (Chlorination) (Fluidization)

30652
S/081/61/000/020/038/089
B140/B110

S 3300

AUTHORS: Mekhtiyev, S. D., Novruzova, A. Sh., Sharifova, S. M.

TITLE: Catalytic alkylation of cyclohexane and methyl cyclohexane with olefins

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1961, 157, abstract 20Zh66 (Azerb. khim. zh., no. 5, 1960, 9 - 15)

TEXT: Cyclohexane (I) and methyl cyclohexane (II) are alkylated with propylene and n-butylene in the presence of 12.5% $AlCl_3$ (referred to cyclane) at 50°C while stirring for 8 - 20 hrs. The unreacted I or II is distilled off in a column (22 theoretical plates), and the residue is fractionated in vacuo. The physicochemical properties of the separated fractions were determined. The nature of hydrocarbons obtained by alkylation of I with n-butylene or of II with propylene was not determined. Alkylation of I with propylene has shown that the yield in alkylate rises from 73.47% to 120.7% (referred to the weight of the cyclane used) as the molar ratio of I to C_3H_6 decreases from 3:1 to 1:1.5. A fraction boiling

Card 1/2

Catalytic alkylation of cyclohexane...

at 91 - 94.5°C/13 mm Hg was separated from the main fraction (b.p. 85 - 95°C/10 mm Hg, n_D^{20} 1.4550, d_4^{20} 0.8350) obtained by alkylation of I with propylene. Dehydrogenation of this fraction gave 2,6-dimethyl naphthalene, m. p. 110 - 110.5°C (from CH_3OH), which indicates the presence of 2,6-dimethyl decalin in the alkylate. [Abstracter's note: Complete translation.]

Card 2/2

MEKHTIYEV, S.D.; SHARIFOVA, S.M.; MAMEDOVA, B.A.

Esterification of terephthalic and isophthalic acids with various alcohols. Azerb. khim.zhur. no.3:55-59 '61. (MIRA 14:11)
(Terephthalic acid) (Isophthalic acid) (Esterification)

MEKHTIYEV, S.D.; SHARIFOVA, S.M.; SMIRNOVA, V.P.

Method of separating mixtures of isophthalonitrile and terephthalonitrile. Azerb. khim. zhur. no.1:31-34 '65. (MIRA 18:7)

1. Institut neftekhimicheskikh protsessov AN AzerSSR.

MEKHTIYEV, S.D.; SHARIFOVA, S.M.; SMIRNOVA, V.F.

Esterification of terephthalic and isophthalic acids by primary aliphatic alcohols. Azerb. khim. zhur. no.3:67-72 '65. (MIRA 19:1)

1. Institut neftekhimicheskikh protsessov AN AzerSSR.

L 14530-66 EWT(m)/EWG(m)/EWP(j)/T WW/DS/RM

ACC NR: AP6005105 SOURCE CODE: UR/0316/65/000/005/0006/0009

AUTHOR: Mekhtiyev, S. D.; Sharifova, S. M.; Smirnova, V. P.; Babayeva, N. L.; Mamedova, Sh. F.

ORG: INKhP AN AzerSSR

TITLE: Investigation of the quantitative isomer composition of mixtures of tere- and isophthalonitriles

SOURCE: Azerbaydzhanskiy khimicheskiy zhurnal, no. 5, 1965, 6-9

TOPIC TAGS: polarography, phthalonitrile, quantitative analysis

ABSTRACT: In connection with the increased production of phthalonitriles, a need exists for convenient methods of determination of tere- and isophthalonitriles. This work deals with the quantitative polarographic determination of the above isomers. In dropping-mercury-electrode experiments conducted against a 0.05 N LiCl background the basic reduction curves of the two isomers were shown to be of the following type (see Fig. 1):

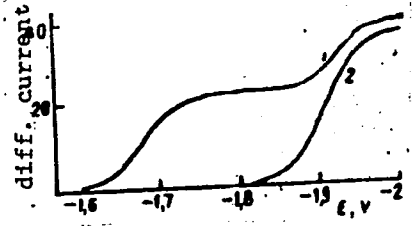


Fig. 1. Polarogram of terephthalonitrile (1) and isophthalonitrile (2) against a background of 0.05 N LiCl, C = 0.26 millimole/liter

Card 1/2

L 11530-66
ACC NR: AP6005105

The pronounced plateaus facilitate determination of the diffusion current. The calibration curve was based on the first wave of terephtnalonitrile, since its second wave tends to overlap with the first wave of isophthalonitrile. Quantitative determinations by this method differ by only 2—4% from those obtained by melting point determinations. The two methods are thus mutually verifying. Orig. art. has: 4 figures and 1 table.
[VS]

SUB CODE: 07 SUBM DATE: 29Jun65/ ORIG REF: 007/ ATD PRESS: 4198

Card 2/2

MAKAROV, A.F.; OBOROTOV, I.Ye.; KALYADIN, I.I.; FELENKO, L.I.; PEREPELITSA, V.R.; NECHAYEV, B.N.; DAVYDOV, A.M.; IVANOV, N.G.; CHUVAKOV, P.F.; FIL'KOV, P.V.; LAR'KIN, G.D.; SVYATKIN, V.V.; SHARIFULLIN, M.

Railroad workers address metallurgists. Put' i put.khoz. 4 no.8:14 Ag '60. (MIRA 13:8)

1. Kovylkinskaya distantsiya puti i putevaya mashinnava stantsiya No.66, stantsiya Kovylkino, Kuybyshevskoy dorogi. 2. Nachal'nik Kovylkinskoy distantsii puti (for Makarov). 3. Sekretari partbyuro, stantsiya Kovylkino, Kuybyshevskoy dorogi (for Oborotov, Nechayev). 4. Predsedatel' mestkoma, stantsiya Kovylkino, Kuybyshevskoy dorogi (for Kalyadin). 5. Sekretari Vsesoyuznogo Leninskogo kommunisticheskogo soyuza molodezhi, stantsiya Kovylkino, Kuybyshevskoy dorogi (for Felenko, Ivanov). 6. Nachal'nik putevoy mashinnoy stantsii No.66, stantsiya Kovylkino, kuybyshevskoy dorogi (for Perepelitsa). 7. Chlen mestkoma, stantsiya Kovylkino, Kuybyshevskoy dorogy (for Davydov). 8. Rukovoditeli brigad i udarniki kommunisticheskogo truda distantsii i putevoy mashinnoy stantsii No.66, stantsiy Kovylkino, Kuybyshevskoy dorogi (for Chuvakov, Fil'kov, Lar'kin, Svyatkin, Sharifullin).

(Railroads--Rails)

SHARIFULLIN, G.Sh.

M.

USSR/Cultivated Plants - Grains.

Abs Jour : Ref Zhur - Biol., No 10, 1958, 44029

Author : Gaidin, S.I., Sharifullin, G.Sh.

Inst : Far-Eastern Scientific Research Institute for Agriculture

Title : The Two-Stage Harvesting of Grains in the Far East.

Orig Pub : Byul. nauchno-tekhn. inform. Dal'nevost. n.-i. in-ta s. kh., 1957, No 4, 3-7.

Abstract : No abstract.

Card 1/1

Oil Well Gas Should be Used (Cont.) SOV/92-58-7-20/37

It is clear, therefore, that oil well flow can be determined with the aid of oil well gas.

ASSOCIATION: Promyssl No. 2 NPU Bavlyneft' (Oilfield No. 2 of the Bavlyneft' Administration)

1. Petroleum--Production 2. Industrial production--Measurement
3. Control systems--Performance

Card 2/2

SOV/20-127-6-11/51

10(4)
AUTHOR: Sharikadze, D. V.

TITLE: The Application of Similarity to the Motion, and the Point Explosion in the Magnetic Dynamics at Infinite Conductivity of the Gas

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 6, pp 1183-1186 (USSR)

ABSTRACT: The present investigation is carried out under the condition that the tension of the magnetic field can be represented as an exponential function of the entropy. For this case, equations (1), (2), (3), and (4) are indicated for the non-stationary flow of a gas. Equation (5) indicates the current density neglecting the displacement current. From equations (1)-(4), the equation system (9) is obtained by eliminating the pressure and the quantity h. The solution of this system is indicated by equations (10), and the integration of the initial equation system (1)-(4) for the application of similarity to the motion is reduced to the quadrature of two common differential equations of first order. The case of a one-dimensional flow is then investigated, and subsequently the point explosion in the magnetic gas dynamics is considered. Equations (22) give the conditions in front of the shock wave,

Card 1/2

The Application of Similarity to the Motion, and the Point Explosion in the Magnetic Dynamics at Infinite Conductivity of the Gas

and equation (23) indicates the total energy of the shock wave at any point of time. The integral (24) is obtained for the total energy from (22) and (23). From the results thus obtained, the distribution of the parameters in front of the shock wave is investigated, and it is ascertained that it is different from the case of point explosion without a magnetic field. The author thanks Professor K. P. Stanyukovich for his interest in the work, and Academician Ya. B. Zel'dovich for his valuable advice. There are 4 Soviet references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: May 9, 1959, by Ya. B. Zel'dovich, Academician

SUBMITTED: May 9, 1959